Lockheed IMS

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Office of the Secretary
Federal Communications Commission
Washington, DC 20554

Reference:

PR Docket 93-61 concerning the Notice of Proposed Rule Making (RM-8013) in the matter of amendment of Part 90 of the Commission's Rules to adopt regulation for Automatic Vehicle Monitoring Systems

Dear Ms Secretary:

The Lockheed Information Management Services Company (Lockheed IMS) has reviewed the Commission's Notice of Proposed Rule Making (RM-8013; PR Docket No. 93-61) in the matter of Amending the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems and is pleased to offer the following comments and recommendations.

Lockheed IMS is a wholly owned subsidiary of the Lockheed Corporation which is headquartered in Calabasas, California. The Lockheed Corporation is a broadly based $10 billion firm whose name has been synonymous with service and technological innovation for more than 70 years. Lockheed is repeatedly selected by government agencies to serve as contractor for some of the country's most complex national priority projects, with contract values exceeding billions of dollars. Lockheed Corporation has more than 70,000 employees, in positions ranging from computer technicians to systems design engineers, systems integrators, trainers, maintenance service professionals, and program managers.

Lockheed IMS has the corporate charter to provide operations management services to the public sector at the federal, state, country, municipal and local agency levels. Consistent with this charter, Lockheed IMS has been at the forefront of the Corporation's activities regarding Intelligent Vehicle Highway Systems (IVHS). Lockheed IMS is a founding member of IVHS America and is actively involved in that organization. Lockheed IMS brings the assets of the entire Lockheed organization to IVHS programs.

ensuring the appropriate level of inputs and oversight, the

involve communications over very short ranges. These communications typically occur over distances limited to a few hundred feet or less. For example, the ranges involved in typical ETTM communications in toll lanes are intentionally limited to the space occupied by an automobile. These range limitations will not be true of certain types of wide band pulse ranging AVM/LMS systems which will depend on the ability of multiple receiving stations located at distances possibly several miles from each other to receive and accurately measure differences in arrival times of low power signals coming from a device located on a vehicle or object. These signals and the multi-lateration location determination process using them will likely be subject to interference coming from one or more Part 15 or higher powered devices operating on the same frequency. This is expected to be particularly true if the interfering device is nearer to one or more of the pulse ranging system's receiving locations than is the vehicle or object to be located. The closer the other device is to a wide band pulse ranging system's receiving antenna in relationship to the placement of the device to be located, the more likely will there be interference with the signal received by that antenna. As a result, Part 15 and wide-band pulse ranging AVM/LMS users will not likely be able to co-exist in the 902 to 928 MHz band without the potential for serious interference problems.

Since the greatest potential source of interference will come from the large number of Part 15 devices already owned and operated by private individuals, the Commission will most likely find it very difficult to enforce regulations controlling the use of these frequencies in problem situations. This situation could be exacerbated if the public perceives that their good faith investment in the Part 15 devices in question has been diminished in value by the government acting on behalf of a few commercial enterprises.

Automatic Vehicle Identification equipment used in Electronic Toll and Traffic Management systems and similar equipment used in other Vehicle to Roadside Communications (VRC) applications involved in IVHS activities also currently operate in the 902 to 928 MHz band. These systems fall under the definition of narrow-band AVM/LMS proposed by the Commission proposed to be licensed in the sub-bands

five or six toll lanes at any one location. This limitation will severely impact on the ability of such systems to continue meaningful operations at most toll plazas.

Because of the potential interference on wide-band pulse ranging AVM/LMS by the large number of existing unlicensed users in the 902 to 928 MHz band and because of the impact AVM/LMS is expected to have on existing and planned AVI/ETTM systems, Lockheed IMS recommends that the Commission reconsider the allocation and look to other portions of the spectrum for use in AVM/LMS applications. Lockheed IMS further recommends that the portion of the spectrum to